

and a desired quantization set is used based from the matrix RAM 26A upon a processing mode. A pixel correction unit 27a in a write control block 27 smoothes over edges in the image data. Prior to modulation, an intensity conversion unit 27a performs an intensity conversion process for onset characteristics on electrical signals for forming an image to increase the reproduction fidelity of dots. In a PWM modulation unit 27c performs pulse width sub modulation for a writing laser. The pulse width modulation is coordinated with the phase control in the gradation control unit 26 in order to realize the smooth transitions between concentrated dots and distributed dots. Finally, a writing unit 28 forms an image on a photo receptor drum via laser, transfers the image onto an image recording medium and fixes the transferred image in order to reproduce the original image. In the above described preferred embodiment, the writing unit 28 is implemented as a laser printer. In an alternative embodiment with a writing unit such as an ink jet, although the smoothing for reproducing dots and the intensity conversion control are common with the preferred embodiment, a development method requires that the PWM modulation unit 27c be different.

Please enter the following amended specification for the paragraph on page 7, lines 17-30 of the original specification:

A first function of a video path control unit 29 is to control the signals indicative of a scanned image. When the signal is 8-bit after the A/D conversion via the CCD, the path control is performed with the same bit width. Through the path control, an external application interface 30 controls an external application such as a scanner application program. Via a memory interface unit 31, data is stored in or read from a scanner buffer memory. A second function of the video path control unit 29 is to control a data path

after the image data has been processed. During the image processing, the bit width is converted to either binary or a plurality of multi values. To accommodate the bit width of the data bus, the process controls the data. Although the video path control unit 29 controls input and output signals from an external application via the external application interface unit 30, output signals such as a fax transmission and a print out from a personal computer are implemented with binary image data. Via the memory interface unit 31, data is stored in or read from a printer buffer memory. The data is transmitted according to a number of bits in the writing unit.

Please enter the following amended specification for the paragraph on page 8, lines 1-4 of the original specification:

Now referring to FIGURE 3, a diagram illustrates one preferred embodiment of a sharpness adjustment unit or a space filter process unit according to the current invention. In general, the image data is processed based upon the information on edges and intensity in the space filter process unit.

Please enter the following amended specification for the paragraph on page 8, lines 17-29 of the original specification:

The above main filter process includes an emphasis filter group for the MTF correction, an original data pass filter after the front filter process and a smoothing filter. The original data pass filter is also used for determining intensity information on